

TYPHOON PERCY (21W)

From genesis to dissipation, every aspect of Percy's life was affected in some manner by its proximity to Typhoon Orchid (20W). As Orchid neared the Philippines on 17 November, an area of upper-level divergence was created over the South China Sea where Orchid's outflow split into southerly and easterly components. Beneath this upper-level divergence, the confluence of the northeasterly monsoon and the southwesterly inflow into Orchid created an area of high positive vorticity. Typhoon Percy formed in this fertile environment.

A tropical disturbance quickly formed but showed no signs of further development until 1600Z on the 18th. In the eight hour period between 181600Z and 190000Z, the disturbance intensified rapidly, forming convective bands and an upper-level anticyclone. A TCFA was issued at this time and was followed rapidly by a warning when continued intensification became apparent from satellite imagery (Figure 3-21-1). A reconnaissance aircraft investigated the area shortly after issuance of the first warning and found a well-developed tropical storm with a circular eye and maximum sustained winds of 50 kt (26 m/s).

Percy moved very erratically for the first four days in warning status. After completing a series of loops and feints, Percy's position at 230600Z was only 90 nm (170 km) from its position at 190600Z. The

proximity of Orchid to the northeast of Percy and the complicated steering environment in which both systems were embedded made forecasting especially difficult. The possibilities were endless; Fujiwhara interactions or the entrainment of one system into the other were two of the scenarios considered at the time by JTWC forecasters.

Percy eventually sheared and became embedded in Orchid's inflow, but not before achieving typhoon status and a maximum intensity of 70 kt (36 m/s). The reports of reconnaissance aircraft throughout Percy's life best tell the story. On 19 November, the first aircraft encountered a well-developed tropical storm with 50 kt (26 m/s) winds and a circular eye. The next mission at 200905Z encountered a 70 kt (36 m/s) typhoon with an MSLP of 971 mb. By 202344Z, Percy was beginning to shear and the aircraft reported a ragged elliptical eye with a poor radar presentation. The 210950Z reconnaissance flight reported that Percy no longer had an eye and that all clouds were below the 700 mb flight level. By the time of the 230241Z mission, Percy was an exposed low-level circulation with maximum sustained winds of 35 kt (18 m/s). The final aircraft reconnaissance mission, at 240200Z, was unable to fix Percy. The final warning on Percy was issued at 241800Z when it became impossible to identify the circulation.

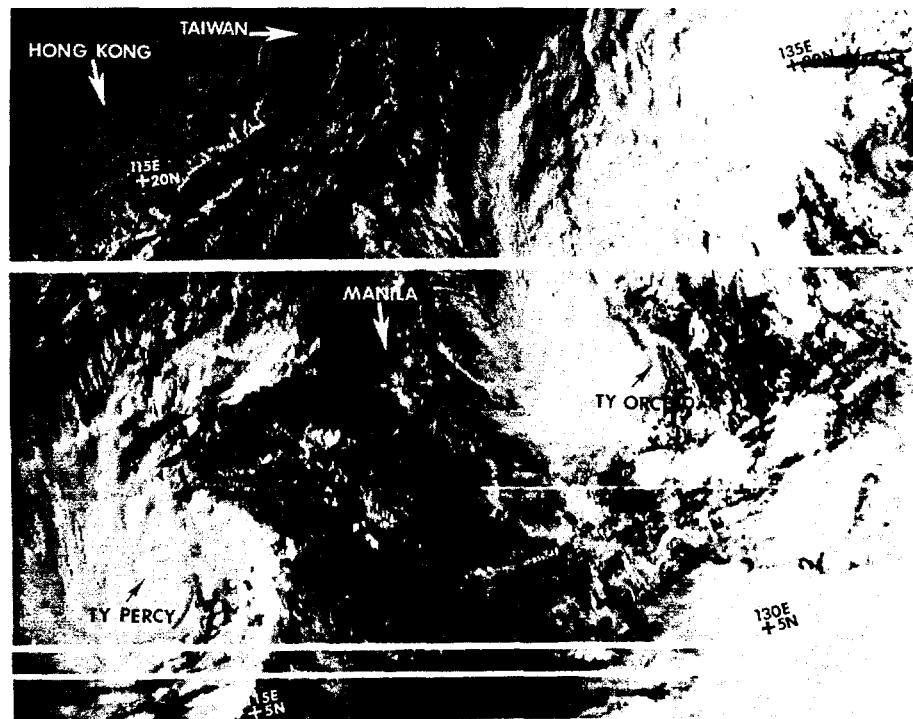


Figure 3-21-1. Percy (left) and Orchid (right), both at tropical storm intensity (182336Z November NOAA 8 visual imagery).